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EMERGENCY PREPAREDNESS AND RESPONSE TO DESERT LOCUST INFESTATION IN SUDAN

July 2021

SDGs:



Country:

Sudan

Project Code:

TCP/SUD/3801

FAO Contribution

USD 300 000

Duration:

5 February 2020 – 4 February 2021

Contact Info:

FAO Representation in Sudan

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Implementing Partners

Ministry of Agriculture and Natural Resources (MoANR).

Beneficiaries

National Desert Locust Unit (NDLU) staff of the Plant Protection Directorate (PPD), vulnerable farmers, agropastoralists and pastoralists in the targeted states affected by Desert Locust.

Country Programming Framework (CPF) Outputs

CPF (2017-2020) Priority 3: Disaster Risk Management and Resilience Building.



BACKGROUND

The Desert Locust (*Schistocerca gregaria*) is one of the most devastating pests in agriculture, causing catastrophic damage to crops and pastures, and posing a major threat for food security, which can lead to famine and displacement.

With regard to the Desert Locust situation in Sudan, the February 2020 forecast indicated that light-to-moderate rainfall occurring on the southern coast would provide favourable ecological conditions for Desert Locust breeding and development along the Red Sea coast. In addition, the new generation could appear in mid-February in the southern parts of winter-breeding areas. Therefore, intensive surveys and close monitoring were highly recommended in all winter-breeding zones.

Against this background, the Plant Protection Directorate (PPD) in Sudan was facing various problems in managing the expected generation of the Desert Locust. These included a shortage of control application equipment and vehicles for survey and control operations, and, more seriously, a shortage of pesticides. In addition, PPD locust staff needed training/retraining on various locust management procedures and operations. In view of this, the Ministry of Agriculture and Natural Resources (MoANR) requested that FAO support the PPD to address these problems, in order to reduce the level of damage on crops and pastures, through the application of preparedness and mitigation measures.

IMPACT

The project provided logistic support and training for National Desert Locust Unit (NDLU) staff of the PPD, enabling them to reduce the level of damage on crops and pastures by the Desert Locust, through the application of preparedness and mitigation measures. This has contributed to increasing the food and nutrition security of vulnerable farmers, agropastoralists and pastoralists in the targeted areas affected by Desert Locust, as well as to enhancing the resilience of beneficiaries' livelihoods.

ACHIEVEMENT OF RESULTS

The operational capacity of NDLU staff in the PPD was enhanced to detect early signs of gregarious locust populations, and undertake rapid intervention to control dangerous locust infestations before they could cause damage to crops. This was achieved through the provision of assorted equipment for surveillance and control, and the training of NDLU staff, improving their skills and capacities in the implementation of Desert Locust monitoring, surveillance and control operations. Details of the outputs and activities undertaken are outlined below.

The capacities of NDLU staff on the management of pests were enhanced through training sessions organized on the maintenance of sprayers, and Desert Locust monitoring, surveillance and control operations; as well as on the use of eLocust3 and Geoflex. Training was also organized for technicians and locust officers, who supported and will continue to support the Desert Locust Information Officer (DLIOs) to carry out the required Desert Locust-related tasks.

Communication and visibility on Desert Locust was enhanced, in order to promote awareness and action by stakeholders. This comprised the preparation and submission of monthly briefings by the NDLU to relevant ministries, at federal and state level, on the activities of the unit, as well as monthly country reports on the Desert Locust situation to the Desert Locust Information Service (DLIS), based on the information received from each state, and separate quarterly project reports. In addition, given that the media plays an important role in informing the community and world at large, the NDLU arranged monthly briefings for the local press on the Desert Locust situation in the country.

The NDLU prepared a well-defined survey and control operation plan, ensuring that the surveys, surveillance and control operations were conducted in a professional manner, and covered all Desert Locust breeding habits. In addition, survey missions were conducted, using eLocust3 to record and transmit field data to all concerned bodies, and comprising the preparation of survey and country reports, which were shared with the DLIS.

Finally, to ensure cohesion in the national Desert Locust programme, the NDLU met continually during the project, to review progress made and the challenges affecting Desert Locust operations in the field.

IMPLEMENTATION OF WORK PLAN AND BUDGET

No serious challenges were faced in the implementation and monitoring processes of the project activities, and all of them were implemented on time, despite the outbreak of COVID-19 at the start of the project. The support provided by the concerned states authorities, at all levels, was greatly appreciated.

Identified risks and mitigation measures

- Desert locust infested areas are usually inaccessible: the probability of the risk was medium, its impact on monitoring and control operations was high. The applied risk mitigation measures included more surveys and control operations conducted in adjacent areas, with strengthened informal information network within the inaccessible areas, thus, the reports, even if they were not confirmed, were passed onto the national locust authorities and the DLIS in FAO headquarters.
- Development of a Desert Locust upsurge: the probability of this risk was medium and its impact on food security and livelihoods was high; the applied mitigation measures included more effective and timely control operations, and better monitoring of locust situation by well-trained Desert Locust survey officers.

FOLLOW-UP FOR GOVERNMENT ATTENTION

It is recommended that the prevention strategy plan be updated regularly.

SUSTAINABILITY

1. Capacity development

The project enhanced the capacity of the PPD, enabling it to conduct the required monitoring, surveillance and control operations of the Desert Locust in Sudan; and built the capacity of PPD staff to perform their task efficiently.

The project activities involved capacity building of the PPD, through the provision of logistic requirements and staff training, in order to achieve sustainable results.

The project contributed greatly to the strong collaboration and partnership between FAO and PPD, by providing the required capacity building and training of PPD staff, as well as training/awareness sessions for the targeted communities in the project operation areas.

2. Gender equality

Gender equality was considered throughout the project. The trained PPD staff included both men and women. Community awareness raising related to the hazards of pesticides use was delivered to all the population in the targeted locations (men, women, boys and girls).

3. Environmental sustainability

The project organized community awareness-raising sessions during the monitoring and surveillance of Desert Locust, and before launching the aerial and ground spraying of infested pastures and forestry areas, which included discussing the importance of avoiding the treated natural resources areas until the environment had become sustainably safe for the communities' members and their livestock.

4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The project activities were implemented with full consideration of the human rights-based approach. The project recognized the rights of the targeted beneficiaries to protect their cultivated crops and pastures, and to sustain their food security and livelihood situation in the project areas.

5. Technological sustainability

The logistic support and PPD staff training provided by the project enabled the PPD beneficiaries to address the Desert Locust invasion in Sudan, and to protect the cultivated crops, pastures and forestry resources from being damaged by the Desert Locust; as well as contributing directly to the sustainable protection of natural resources. In order to build the capacities of PPD staff, training sessions were also provided on the maintenance of sprayers, Desert Locust monitoring, surveillance and control operations, as well as on eLocust3 and Geoflex.

6. Economic sustainability

No additional financial resources were allocated or mobilized as a result of the project; however, the implementation of the project was complemented by other projects concerning Desert Locust monitoring, surveillance and control operations in Sudan.

The support provided by FAO to the PPD during the project contributed significantly to improving its capacity, and paved the way for securing more external funding for Desert locust operations in Sudan.

ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	Secure livelihoods, feed and food security in Sudan		
Outcome	Level of damage on crops and pastures reduced through preparedness and mitigation measures		
	Indicator	The Desert Locust unit analyses ecology information, and then disseminates it to the concerned staff to undertake survey/control operations and other actions on time.	
	Baseline	Low level of prevention strategy implemented.	
	End Target	Detect early signs of gregarious locust populations, and undertake rapid intervention to control dangerous locust infestations before they can cause damage to crops.	
	Comments and follow-up action to be taken	The operational capacity of the NDLU in the PPD was built through the provision of logistic and control operation items, and the training of NDLU staff, in order to improve their skills and capacities in the implementation of Desert Locust monitoring, surveillance and control operations in Sudan. In addition, briefings (press, ministerial, etc.) and quarterly project implementation reports were prepared by the PPD and shared. It is recommended that the prevention strategy plan be updated regularly.	
Output 1	The semi-autonomous National Desert Locust control unit operations are strengthened		
	Indicators	Target	Achieved
	<ul style="list-style-type: none"> - Number of Semi-autonomous NDLU strengthened in affiliated states. - Number of functional field stations strengthened. 	<ul style="list-style-type: none"> - NDLU and affiliate centers at Red Sea coast (Sawakin and Tokar). - 2 (Sawakin and Tokar). 	<ul style="list-style-type: none"> - Yes - Yes
Baseline	<ul style="list-style-type: none"> - Number of Semi-autonomous. - NDLU strengthened in affiliated states. - Number of functional field stations strengthened. 	<ul style="list-style-type: none"> - NDLU and affiliated centers at Red Sea coast are available in Sawakin and Tokar localities. - 1 	
Comments	The capacity of the NDLU in the PPD was built through the provision of logistic and control operation items, such as vehicles, sprayers, camping equipment, computers, printers; as well as through the training of PPD staff to improve their skills and capacities in the implementation of Desert Locust monitoring, surveillance and control operations in Sudan, comprising training on the maintenance of sprayers.		
Activity 1.1	Official communication on strengthening of the NDLU		
	Achieved	Yes	
	Comments	The Federal Government strengthened the NDLU. The project activities were implemented in partnership with the PPD, represented by the NDLU. Its capacity was enhanced through the project, complemented by other projects; it became semi-autonomous, within the MoANR.	
Activity 1.2	Appointment of country Desert Locust focal point and other staff members key to DL activities		
	Achieved	Yes	
	Comments	To ensure sustainability, a dedicated team of well-qualified officers was selected by the NDLU, and trained and tasked to manage the routine activities related to the Desert Locust monitoring, surveillance and control operations in Sudan.	
Activity 1.3	Procurement of equipment		
	Achieved	Yes	
	Comments	The following logistic and control operation items were procured and delivered to the NDLU in the PPD, enhancing its operational capacity: one Macbook Pro computer; one printer and scanner; four Ulvamast V4M sprayers; eight Micron AU8000 sprayers; and 11 000 Fipro pesticide - ultra-low volume (ULV) sprayers.	

Output 2	National Desert Locust Unit staff trained and their capacities on the management of pests enhanced		
	Indicators	Target	Achieved
	<ul style="list-style-type: none"> – Number of Desert Locust Information Officers (DLIO) trained. – Number of Desert Locust Technicians and Officers and sprayer technician trained. 	<ul style="list-style-type: none"> – 2 – 30 	Yes
Baseline	<ul style="list-style-type: none"> – Number of DLIO trained. – Number of Desert Locust Technicians and Officers and sprayer technician trained. 	<ul style="list-style-type: none"> – 0 – 12 	
Comments	Training was provided to build the capacity of PPD staff in Sudan, including on the maintenance of sprayers, among other things.		
Activity 2.1	Training of DLIOs on biology, control, eLocust3, Geoflex etc.		
	Achieved	Yes	
	Comments	The training of PPD staff was done locally, and was aimed at ensuring that all officers were fully competent in the use of eLocust3 and Geoflex.	
Activity 2.2	National training of field staff		
	Achieved	Yes	
	Comments	Training was conducted for staff, including technicians and locust officers, who supported and will continue to support the DLIOs to carry out the required Desert Locust-related tasks.	
Activity 2.3	A training course on the maintenance of spray equipment		
	Achieved	Yes	
	Comments	A national training course on the maintenance of spray equipment was conducted for PPD staff in Kassala and North Kordofan states; an expert from Egypt facilitated the training.	

Communication and visibility on Desert Locust enhanced for awareness and action by stakeholders			
	Indicators	Target	Achieved
Output 3	<ul style="list-style-type: none"> – Number of Ministerial briefings held. – Press briefings held on NDLU activities. – Number of country reports sent to DLIS. – Quarterly project implementation report issued. – Biannual NDLU review and planning meetings held. 	<ul style="list-style-type: none"> – 12 – 24 – 96 – 4 – 2 	Yes
Baseline	<ul style="list-style-type: none"> – Number of Ministerial briefings held. – Press briefings held on NDLU activities. – Number of country reports sent to DLIS. – Quarterly project implementation report issued. – Biannual NDLU review and planning meetings held. 	<ul style="list-style-type: none"> – 2 – 1 – 12 – 1 – 1 	
Comments	Monthly and weekly briefings, press briefings, ministerial briefings, and quarterly project implementation reports were prepared by PPD and shared, as planned.		
Activity 3.1			
	Monthly briefings by NDLU at Ministerial level		
	Achieved	Yes	
	Comments	The respective DLIO/focal person provided monthly updates to the relevant ministries, at federal and state level, on the activities of the unit; this was part of the weekly departmental meetings. During any outbreak or upsurge, this was increased to weekly updates.	
Activity 3.2			
	Media briefing on NDLU activities		
	Achieved	Yes	
	Comments	Given that the media plays an important role in informing the community and world at large, the NDLU arranged monthly briefings for the local press on the Desert Locust situation in the country. The country Desert Locust focal person was responsible for the media briefing.	
Activity 3.3			
	Preparation and circulation of monthly country Desert Locust report		
	Achieved	Yes	
	Comments	The NDLU in Sudan provided a monthly country report on the Desert Locust situation to the Desert Locust Information Service (DLIS), based on the information received from each state, and provided in the standard format advised by the DLIS.	
Activity 3.4			
	Preparation and circulation of project quarterly report		
	Achieved	Yes	
	Comments	Separate quarterly project reports were prepared by the NDLU, highlighting the project progress versus milestones, as well as challenges, and actions planned to deal with the identified challenges.	
Activity 3.5			
	NDLU meetings		
	Achieved	Yes	
	Comments	To ensure cohesion in the national Desert Locust programme, the NDLU, as indicated under Output 1 (Desert Locust focal point and DLIOs), met continually to review progress made and the challenges affecting Desert Locust operations in the field. This involved the whole team, which participated fully in the technical meetings and in generating the report shared at ministerial level, as well as with FAO.	

Survey, control and reporting on the Desert Locust in Sudan			
Output 4	Indicators		Achieved
		<ul style="list-style-type: none"> – Number of quality of eLocust3 reports issued. – Number and quality of Country DL reports issued. – Hectares treated. – Hectares physically surveyed for Desert Locust. 	<ul style="list-style-type: none"> – 104 – 24 – 80 000 ha – 600 000 (cumulative)
Baseline	<ul style="list-style-type: none"> – Number of quality of eLocust3 reports issued. – Number and quality of Country DL reports issued. – Hectares treated. – Hectares physically surveyed for Desert Locust. 	<ul style="list-style-type: none"> – 0 – 0 – 0 – 0 	
Comments			
Activity 4.1	Preparation of survey plan		
	Achieved	Yes	
	Comments	The NDLU prepared a well-defined survey and control operation plan, confirming the available government resources, and specifying the gaps that needed covering, based on the support provided through the project and other donor projects that complemented government efforts, and ensuring that the surveys, surveillance and control operations were conducted in a professional manner, and covered all Desert Locust breeding habits.	
Activity 4.2	Field missions for surveys and control		
	Achieved	Yes	
	Comments	Survey missions were conducted, varying from 10 to 15 days in length, and based on the distance and terrain to be covered. The survey teams used eLocust3 to record and transmit field data to all concerned bodies. Each survey mission comprised a minimum of six stops each day (per team), and eLocust3 data were completed with area names, Global Positioning System (GPS) coordinates, and relevant images. All relevant fields were filled in by the survey teams, and data were then uploaded on a daily basis on Geoflex. Survey reports were made available to the DLIS within three days of completing the surveys, and a country report was shared with the DLIS by the fifth day of the following month, as per the approved format.	

Partnerships and Outreach

For more information, please contact: Reporting@fao.org

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